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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,075	04/12/2005	Hiroko Kuno	050136	2558

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KRATZ, QUINTOS & HANSON, LLP
1420 K Street, N.W.
Suite 400
WASHINGTON, DC 20005

EXAMINER	
JACKSON, MONIQUE R	

ART UNIT	PAPER NUMBER
1794	

MAIL DATE	DELIVERY MODE
02/18/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/531,075	KUNO, HIROKO	
	Examiner	Art Unit	
	Monique R. Jackson	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 October 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2 and 5* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2 and 5* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The amendment filed 10/28/08 has been entered. Claims 1, 2 and 5 are pending in the application. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

2. Claims 1, 2 and 5 are rejected under 35 U.S.C. 103(a) as unpatentable over Dobler et al in view of Fisher et al. Dobler et al teach a composition containing transparent thermoplastic polymers and surface modified oxide particles having a particle size of less than 200nm, suitable for the preparation of products wherever diathermancy is undesirable (Abstract.) Dobler et al teach that the transparent, thermoplastic polymers used are polycarbonates, aromatic polyesters, transparent thermoplastic polyurethanes, transparent (meth)acrylates and polyolefins such as transparent polypropylene (as claimed) and that the oxide particles are antimony-doped tin oxide particles preferably present in a quantity of 0.01 to 30 parts by weight, per 100 parts by weight of the transparent, thermoplastic polymer (Col. 3, lines 28-48; Col. 4, lines 1-4 and 13-17; Col. 5, lines 31-40.) Dobler et al teach that the particles can be kneaded into the transparent thermoplastic polymer to produce the composition and that the composition can be utilized in the manufacture of sheets, films, glazing systems, roofing systems or other products wherein the composition can be processed by extrusion or injection molding, or can be optionally coextruded with one or more coextruded layers (Col. 2, lines 41-42; Col. 3, lines 39-61; Col. 8, lines 6-16 and 37-58.) Dobler et al also teach that the composition can be utilized in multi-coat systems wherein the multi-coats can be applied at the same time such as by coextrusion or sandwich molding, or can be applied to the final shaped basic form such as by lamination with a film (Col.

8, lines 6-16.) Dobler et al teach that the composition exhibits as high an absorption as possible in the near infrared (NIR) range between 750 and 2500 nm and at the same time exhibits as high a transparency as possible in the visible light range between 400 and 750nm, with data reported for ITO particles over a wavelength of 300nm to 1100nm (Col. 2, lines 27-35.) Dobler et al also teach that the composition may further comprise other conventional additives or fillers but do not specifically teach lanthanum hexaboride LaB_6 in the instantly claimed amount. However, LaB_6 is an obvious, functionally equivalent IR absorbing material to ATO particles and may be advantageously utilized in combination with ATO particles as taught by Fisher et al to provide the desired absorbing or transmittance properties for a particular end use, wherein one having ordinary skill in the art at the time of the invention would have been motivated to utilize routine experimentation to determine the optimum amount of ATO, LaB_6 or both to provide the desired light and heat shielding properties for a particular end use, with amounts similar to those disclosed by Fisher et al being obvious and resulting in transmittance values within the claimed ranges.

3. Claims 1, 2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi et al (USPN 4,564,647) in view of Fisher et al. Hayashi et al teach a polyethylene composition comprising a filler dispersed uniformly throughout the polyethylene composition irrespective of the amount of the filler added, wherein the filler is determined by the purpose for which the ultimate polyethylene composition is used and may include lanthanum boride LaB_6, and wherein the filler is added in an amount that the filler content in the ultimate polyethylene composition is at least 0.5% by weight (Entire document; Col. 1, lines 62-Col. 2, line 29; Col. 4, lines 60-Col. 5, line 20; Col. 6, lines 1-53; Col. 8.) Hence, Hayashi et al provides a suggestion to produce LaB_6

filled polyethylene wherein the amount of LaB_6 is at least 0.5% by weight but do not specifically teach that the polyethylene composition is formed into a layer with the LaB_6 provided in the instantly claimed amount. However, Hayashi et al do suggest providing the LaB_6 filler in any amount above 0.5% by weight wherein the final amount of the filler is based upon the intended end use of the ultimate polyethylene composition and given that LaB_6 is a known IR absorbing material as taught by Fisher et al, it would have been obvious to one having ordinary skill in the art at the time of the invention to utilize routine experimentation to determine the optimum amount of the LaB_6 to provide the desired IR absorbing or transmittance properties for a particular end use with amounts similar to those disclosed by Fisher et al being obvious and resulting in transmittance values within the claimed ranges. Further, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide the polyethylene composition as a single layer sheet or as an interlayer between two glass sheets as taught by Fisher et al to provide IR absorbing properties.

Response to Arguments

4. Applicant's arguments with respect to claims 1, 2 and 5 have been considered but are moot in view of the new ground(s) of rejection.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monique R. Jackson whose telephone number is 571-272-1508. The examiner can normally be reached on Mondays-Thursdays, 10:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Monique R Jackson/
Primary Examiner, Art Unit 1794
February 17, 2009